

## Claims

1. Method for kick-down switching speed optimization in a motor vehicle with an automatic transmission, characterized in that the kick-down upswitch point is determined as a function of the load conditions and road inclination in each case.

2. Method according to Claim 1, characterized in that when a kick-down condition is recognized by the transmission control system, a speed offset of appropriate sign ( $nd\_abkd$ ) is added to the current upshift point as a function of the output speed gradient ( $ng\_ab$ ).

3. Method according to Claim 2, characterized in that the variation of the speed offset of appropriate sign ( $nd\_abkd$ ) is stored in the transmission control system in the form of a characteristic line a separate characteristic line being stored for each upshift.

4. Method according to Claim 1, characterized in that an absolute kick-down switching characteristic line is used for the determination of the kick-down upshift point.

5. Method according to Claim 1, characterized in that when a kick-down condition is recognized, the target gear for the next upswitch and the transmission output speed gradient ( $ng\_ab$ ) are determined and the speed offset ( $nd\_abkd$ ) is then calculated, the delay times for individual gear changes being stored for application and temperature-dependent delay times being taken into account.

6. Method according to any of Claims 2 to 6, characterized in that the value of the speed offset ( $nd\_abkd$ ) is calculated, and is then recalculated as a function of the existing driver behavior, in such manner that the upshift speed ( $n\_abkd$ ) is adapted to the driver's way of driving.

7. Method according to Claim 6, characterized in that the value of the speed offset ( $nd\_abkd$ ) is re-calculated as a function of driver activity by multiplying the characteristic line ( $nd\_abkd$ ) by a factor that depends on driver behavior.

8. Method according to Claim 6, characterized in that the value of the speed offset (nd\_abkd) is re-calculated as a function of driver activity by establishing characteristic lines for each characteristic type of driver, intermediate values being determined by averaging between the driver types.